

### ABSTRACT

The present invention provides binding moieties for fibrin, which have a variety of uses wherever detecting, isolating or localizing fibrin, and particularly fibrin as opposed to fibrinogen, is advantageous. Particularly disclosed are synthetic, isolated polypeptides capable of binding fibrin and recognizing the form of polymerized fibrin found in thrombi. Such polypeptides and disclosed derivatives are useful, e.g., as imaging agents for thrombi. Preferred embodiments useful as magnetic resonance imaging (MRI) contrast agents useful for detecting a thrombus *in vivo* are also disclosed.